

IN THE CLAIMS

1. (Currently amended): A nozzle arrangement adapted to be fitted to an outlet of a fluid supply and to actuate and generate a spray of fluid dispensed from said fluid supply during use, said nozzle arrangement having a body which ~~comprises~~ includes ~~(a) actuator means which is adapted, upon operation, to cause fluid to flow from said fluid supply and through said nozzle arrangement;~~ ~~(b)~~ (a) an inlet through which fluid from said fluid supply accesses the nozzle arrangement during use, ~~(c)~~ (b) an outlet through which fluid is ejected from the nozzle arrangement during use, ~~and~~ ~~(d)~~ (c) an internal fluid flow passage which connects said inlet to said outlet, ~~characterized in that~~ said fluid flow passageway includes a chamber and at least one spray orifice downstream of the chamber, said spray orifice having a cross-sectional area smaller than the cross-sectional area of any part of the chamber, the chamber being a non-planar expansion of the passageway and having at least one inlet orifice, the chamber ~~being shaped such that its width is varied at least twice along its length~~ comprising:

a first section downstream of the at least one inlet orifice to the chamber having divergent walls immediately followed by a second section, downstream of the first section, said second section having convergent walls.

2.- 3. Cancelled.

4. (Original): A nozzle arrangement according to claim 1 wherein said shaped chamber comprises an internal chamber disposed at a position along the length of the fluid flow passageway, and having a constricted inlet, through which fluid flowing through the passageway during use accesses the chamber, and a constricted outlet, through which fluid exits the chamber during use.

5. (Currently amended): A nozzle arrangement according to Claim 1, wherein said shaped chamber comprises a series of sub-chambers connected between the at least one inlet orifice and at least one outlet orifice, constrictions therebetween having a greater cross-sectional area than the, or each, inlet orifice and the, or each, outlet orifice.

6-13. (Cancelled).

14. (Previously presented): A nozzle arrangement according to claim 1, wherein at least part of the interior surface of the shaped chamber is formed with holes or pits.

15. (Previously presented): A nozzle arrangement according to claim 1, wherein at least part of the interior surface of the shaped chamber is formed with shaped elevated sections or protrusions.

16. (Previously presented): A nozzle arrangement according to claim 1 wherein the transverse cross-section of the chamber at any given point along its length is generally circular.

17. (Previously presented): A nozzle arrangement according to claim 16, wherein portions of the chamber having convergent or divergent walls define a generally frustoconical volume.

18. (Previously presented): A nozzle arrangement according to claim 1, said nozzle being composed of at least two parts, each part having an abutment surface which are brought into contact with one another to form the nozzle, in which grooves and/or recesses are formed on at least one of the abutment surfaces, said grooves and/or recesses defining the fluid flow passageway.

19-21 (Cancelled)

22. (Currently amended): A nozzle arrangement according to claim 1, in which two or more shaped chambers are provided in independent multiple flow parts ~~or~~ of said flow passageway.

23. (Previously presented): A nozzle arrangement according to claim 1, comprising two or more of said shaped chambers connected in series.

24. (Original): A nozzle arrangement according to claim 23, wherein other passageway features are provided connected between said series connected chambers.

25. (Currently amended): A nozzle arrangement according to claim 1, wherein the at least one inlet orifice is provided in an upstream end of the chamber and is arranged to direct fluid into the chamber in a generally longitudinal direction thereof.

26. (Previously presented): A nozzle arrangement according to claim 25, wherein the at least one inlet orifice is arranged to direct fluid into the chamber substantially inline with or parallel to the longitudinal axis.

27. (Previously presented): A nozzle arrangement according to claim 25, wherein the at least one inlet orifice is arranged to direct fluid into the chamber at an angle to the longitudinal axis of the chamber.

28. (Previously presented). A nozzle arrangement according to claim 27, wherein there are at least two inlet orifices, the orifices being aligned such that the respective fluid streams entering the chamber are directed along mutually convergent or mutually divergent paths.

29. (Currently Amended): A nozzle arrangement according to claim 1, wherein ~~one or more~~ at least one inlet orifices orifice are ~~is~~ provided in a side of the chamber proximal an upstream end so as to direct fluid general transversely across the chamber.

30. (Original): A nozzle arrangement as claimed in claim 29, in which at least one of the side inlets is arranged to direct fluid into the chamber tangentially.

31. (Previously presented): A nozzle arrangement according to claim 1, wherein the chamber has two or more inlet orifices, at least one of the inlet orifices being adapted to direct a liquid into the chamber and at least one other of the inlet orifices being arranged to direct a gas into the chamber.

32. (Previously presented): A nozzle arrangement according to claim 1, wherein the, or each spray orifice comprises an outlet of the shaped chamber.

33. (Previously presented): A nozzle arrangement as claimed according to claim 1 wherein the spray orifice comprises the outlet of the nozzle device.

34 - 35. (Cancelled).

36. (New): A nozzle arrangement adapted to be fitted to an outlet of a fluid supply and to actuate and generate a spray of fluid dispensed from said fluid supply during use, said nozzle arrangement having a body which includes (a) an inlet through which fluid from said fluid supply accesses the nozzle arrangement during use, (b) an outlet through which fluid is ejected from the nozzle arrangement during use, and (c) an internal fluid flow passage which connects said inlet to said outlet, said fluid flow passageway includes a chamber and at least one spray orifice downstream of the chamber, said spray orifice having a cross-sectional area smaller than the cross-sectional area of any part of the chamber, the chamber being a non-planar expansion of the passageway and having at least one inlet orifice, the chamber comprising:

a first section downstream of the inlet to the chamber having divergent walls and a second section, downstream of the first section, having convergent walls, said divergent and convergent wall sections being separated by a third wall section of constant width.